MIRJAM BRUSIUS, KATRINA DEAN and CHITRA RAMALINGAM (eds.), **William Henry Fox Talbot: Beyond Photography**. New Haven: Yale University Press, 2013. Pp. ix + 308 + 109 colour illus. ISBN 978-0-300-17934-7. £50.00 (cloth).
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This collection of essays is the result of a Cambridge conference held in 2010, exploring the varied scientific achievements of William Henry Fox Talbot (1800–1877). Talbot was a Wiltshire-based Victorian gentleman scholar, best known today for his invention of the calotype (also called talbotype) process of photography and mostly referred to with the somewhat blurry label 'polymath'.

During the 2000s, the accessibility of Talbot's vast scientific legacy increased considerably with the 2003 launch of the Correspondence of William Henry Fox Talbot online database and the acquisition of the 'Talbot collection', including a large number of scientific notebooks, by the British Library in 2006. The letters and the notebooks both attest to the broad array of fields that Talbot was interested in.

The volume's aim is to 'situate Talbot amid the networks and institutions of Victorian intellectual enterprise, while raising basic questions about the relation between photography and these other fields, as well as pointing toward new directions of research' (p. 4). For this purpose, the editors have chosen an interesting division to structure their book. Instead of distinguishing between the 'scientific' and the 'aesthetic' aspects of Talbot's invention, they subsume seemingly heterogeneous topics under three different categories: 'Models for investigation', 'Invention and discovery' and 'Institutions and networks'.

The first of these sections starts off with a lifelong passion of Talbot's, botany. Anne Secord looks into the relationship between this interest and Talbot's photography. Her argument is that 'rather than photography being the means by which to illustrate Talbot's botanical interests, it was botany that provided a model for both observation and the exercise of judgment' (p. 42). June Barrow-Green deals with Talbot's achievements in the discipline he read during his studies at Cambridge University: mathematics. She analyses his contributions to the field and concludes, 'What is significant about Talbot and mathematics is not what he achieved in mathematics but rather what mathematics achieved for him' (p. 88), for example gaining him a fellowship in the Royal Society and widening the network of scholars he corresponded with. Graham Smith writes on the effect of Walter Scott's writings and his romantically influenced descriptions of nature on Talbot's publication 'Sun pictures in Scotland', but the essay's research question remains somewhat unclear. The next section, 'Invention and discovery', contains three essays even more closely concerned with matters of the history of early photography. Herta Wolf looks closely at a metaphor used in an 1839 'Report of the Royal Institution', characterizing nature as man's 'drawing mistress'. Wolf concludes, 'When analyzing the first texts devoted to the technique of photography from the spring of 1839, we are confronted with a concept of nature that – if one thinks of nature as active and operative – was rooted in the model of chemical causation and chemical experiment' (p. 137).

Vered Maimon's essay focuses on 'the epistemological and philosophical premises of Talbot's accounts of photography and his early botanical images', thus emphasizing 'the historical condition within which the conceptualization of early photography took place' (p. 156). Larry Schaaf completes this section with his paper on Talbot's development of the new technique of photogravure.

Lastly, the final section focuses on Talbot's role in 'Institutions and networks'. It starts off with a particularly interesting field of research, cuneiform studies, leading to Talbot's 'quarter-century love affair with Assyriology' (p. 214). In her contribution, Eleanor Robson writes about a decisive event in 1857, which consisted of a parallel translation of an Assyrian inscription by four different scholars. It had been initiated by Talbot and was afterwards generally considered the starting point of Assyriology as a discipline. Robson looks at the facts and concludes that the event 'was not the

heroic revelation of truth that it is often portrayed as being' (p. 212). Nonetheless, she points out that despite Talbot being largely overlooked in the later history of Assyriology, 'in the 1870s, he was a key member of the British Assyriological community' (p. 213). Mirjam Brusius sheds a light on the institutional inner workings of the British Museum around 1850, showing that the new technique of photography was only very reluctantly implemented there. According to her, this is partly due to the fact that both the fairly new technology and the 'newly arriving objects that were to be depicted' had an 'ill-defined status' (p. 238). Using Talbot's request for photographs of cuneiform tablets as a case study, she also highlights the fact that 'the British Museum institutionalized and funded scholarship but also controlled it', and 'that not all scholars counted as equal actors in scientific networks' (pp. 238–239). The last essay in this section, by Chitra Ramalingam, deals with Talbot's experiments on capturing rapid movement, which he publicly presented at the Royal Institution in 1851, trying to emulate the impressive atmosphere created by the experiments of Charles Wheatstone (1802–1875) or Michael Faraday (1791–1867). After a careful analysis of different sources, her verdict is that 'Talbot's attempt to redefine photographic instantaneity had failed, not just technically but socially', because of his lack of 'showmanship' (p. 264).

The volume is an interesting and diverse collection of new perspectives on Talbot's scientific legacy as well as on his social role and his standing in the scientific circles of his time. It manages to provide a wider context for the work of a man who has long been reduced solely to being the inventor of the calotype. That Talbot did not make lasting contributions to many of his fields of interest is of less importance once the reader understands that his work can provide excellent insights into the world of Victorian science in general. Well connected yet mostly working by himself, his example helps to elucidate the role of scholarly networks and the notion of amateurs and professionals around the middle of the nineteenth century. Thus the book will be a worthwhile read not only for historians of photography, but for historians of science too.

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Raymond Flood, Mark McCartney and Andrew Whitaker (eds.), **James Clerk Maxwell: Perspectives on His Life and Work**. Oxford: Oxford University Press, 2014, Pp. x + 364. ISBN 978-0-19-966437-5. £39.99.
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For too long James Clerk Maxwell has remained insufficiently known by both non-scientific historians and the general public. Maxwell was a theoretical mathematical physicist of world class. Twentieth-century giants in physics have attested to no less. In *The Feynman Lectures on Physics* (1964) Richard Feynman offered unparalleled praise: 'From a long view of the history of mankind – seen from, say, ten thousand years from now – there can be little doubt that the most significant event of the 19th century will be judged as Maxwell's discovery of the laws of electrodynamics'. Darwin might have opened spectacular, emotional public controversies but the lesser-known Maxwell likely did much more to reroute the course of human history. It is remarkable that he is not more widely recognized. Fortunately, in recent times excellent historical research such as assembled here by Raymond Flood, Mark McCartney and Andrew Whitaker has addressed the gap in popular and general academic knowledge.

The general plan of this project is acutely designed to deliver a wonderfully holistic tour of Maxwell's life and impact. Each of the chapter contributors is an expert in the area of his or her comment. For purposes of economy of space in this review, it is not possible to break down comments to a contributor-by-contributor level. Suffice it here to assure the reader that each and every section has valuable and insightful information, well worthy of inclusion in the final